1:Seligmann & Seligmann E-5 (1907-1908) 1911
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19 metres; this occurred twice. According to the system in ordinary use the position of the letter E used is supposed to be distinguished by the normal eye at a distance of 6 metres, that is, the average sight of a Vedda would be put down as 2·33 times the normal. It is, however, well known that the results obtained are greatly influenced by the quality and nature of the light existing during the test, and comparison with the figures obtained in other countries shows that there is little difference between Veddas and other races. This was confirmed by the results of the examination of ten peasant Sinhalese whose average visual acuity was 17 metres, while if one man of distinctly subnormal vision be ignored the average acuity of the remaining nine works out at nearly 18·5 metres. The keenest sighted individual could distinguish the position of the letter E at 22 metres.

Acuity of vision as tested by the E method seems to decrease in middle life, but this although often quite well marked does not lead to any recognised diminution of hunting capacity, practice and knowledge fully making up for the physical changes in the eye.

Colour Vision.

The alleged absence of the full appreciation of colours among the Veddas was brought forward in Ceylon as a proof of their low mental capacity, but careful observations made with coloured wools and papers showed their perception of colour to be extremely acute. Forty-two adult males, 15 women and 3 boys were tested for colour blindness with a negative result. The majority of our subjects matched the wools quickly and accurately, and of those who at first made mistakes nearly all matched a wool with another of the same saturation but of a different colour. This was particularly noticeable in one old woman who picked out the wools and arranged them in heaps composed of varying colours of the same saturation.

Colour names were collected from 31 men and 4 women

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by means of Rothe's set of colour papers and the results obtained in this way were checked by frequent reference to Holmgren's wools. When shown the coloured papers and asked the names the more sophisticated among the Veddas gave the usual Sinhalese colour names, red *rutu*; orange and yellow *kaha*; green (three shades) and blue and purple were all called *nil*; black *kalu*; white *sudu*. However few men used all the Sinhalese names, most of the men making comparison with natural objects for at least one or two of the colours, while the least sophisticated men made comparisons for all the colours. Handuna of Sitala Wanniya compared all colours to flowers and leaves except red and orange for which he gave the usual Sinhalese terms. As the flowering season had not begun at the time of our visit we were unable to test the accuracy of his comparisons with the objects themselves, therefore after the colour papers had been put away we repeated the names he had told us and asked him to pick out similar colours from the coloured wools. This he did, and we found that these matched the colour papers to which the flower names had originally been applied with extraordinary accuracy. This man and others as uncontaminated as himself distinguished the two shades of blue and the three of green of the papers, while those who had mixed more with Sinhalese applied *nil* to all shades of blue and green. In order to test whether Handuna knew the ordinary Sinhalese colour names, we gave him the bundle of wools and asked him to show us *sudu* (white), he then picked out white and the very slightly saturated colours of all shades. For *rutu* (red) he gave all the strongly saturated shades of red, purple, claret, bright pink and brown shading off to yellow; *kaha* (yellow) included yellows and a few pale pinks; *nil* (blue and green) included all strongly saturated blue and green-grey tints, violet and some dark browns; these darker shades he also said were *kalu* (black) and he compared them to the bark of trees.

It was noticed that on asking the names for the colour papers the Veddas made comparisons, likening the red paper to a red flower or saying "red like blood," while the purple paper was compared to a blue flower; the three shades of green shown would often be compared to three different kinds of

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leaves, whereas the rural Sinhalese would say *ratu* for the two first colours and *nil* for the four last.

Other comparisons frequently made by Veddas were "like *hatu*" used both for orange and black, a source of great bewilderment till it was discovered that *hatu* was a general term for fungus, a bright orange and a black species being brought to us to clear up the difficulty.

Red was compared to fire, black to the coat of a bear, pure white to coconut milk and dirty white to the wax of the *bambara*. Generally speaking it appeared that the more unsophisticated the Vedda the less he used the Sinhalese colour terms, using in their place references to familiar objects. "Like blood" was a frequent comparison, sometimes used for red and sometimes for purple. Though colours were occasionally compared to bird's feathers we did not note any compared to butterflies. When shown purple, violet and blue, most Veddas said they did not know those colours or had never seen anything like them, and one said the same of yellow.

Forty-eight rural Sinhalese were tested for colour blindness and no case was found. The coloured wools were usually matched quickly and accurately. Colour names were collected from 25 men, the usual names given were *ratu* for red and purple, *kaha* for yellow and orange, *nil* for all greens and blues and sometimes for violet and purple, *kalu* for black and also often for indigo, *sudu* for white. Other words occasionally given were *dumbutu* or *dumburu*[1] once given for black, three times for violet, once for blue and once for purple, and on one occasion when wools instead of papers were shown the same word was applied to a shade of claret. *Illalu*[2] was used once for purple, and once for violet. *Guru*[3] which means mud was given on one

[1] Mr Parker informs us "that *dumbutu* is the same as *dumburu* and means a dark reddish purple or according to Clough 'a compound of red and black' and is sometimes applied to the dark rain clouds of the evening."

[2] *Illalu* is stated in Clough's Dictionary to be applied to "a fair complexion, light red, brown."

[3] Mr Parker writes, "In Clough's Dictionary the meanings of *gurugala* are 'red chalk [Pisolite], red orpiment, gold' but '*guru* colour' is applied colloquially to a purple sky." In the invocation to Punalkkia Yaka (Chapter x, No. XIV) *guru* is applied to the sky and the earth at dawn.

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occasion for orange and on another for violet; *tambe* (copper) was used for violet and blue, this word was also given for the colour of our hair when it applied equally to dark and red hair. Sinhalese hair was called *kalu*. *Pachche* was once used for yellow-green, this being a Tamil word for green.

Whereas the Veddas seemed to think of colours by a mental reference to the appearance of leaves, flowers and other natural objects, the Sinhalese far more usually made use of colour terms, and none distinguished as many shades as the Veddas except Tissahami, "the Vedda Arachi," whose keen comparisons make his observations worthy of record in full. Several Sinhalese likened red and purple to blood, and compared green with the colour of leaves. Tissahami was first shown the colour papers, for red he gave *ratu* and said it was like fire; yellow he said he did not know; bright green *nil*, blue-green *nil*, blue *kalu*, these three he compared to different kinds of creepers; purple he said he did not know; violet like the small stingless bee; black *kalu*; white *sudu*. He was so interested in looking at colours and comparing them that we showed him several other objects. The outside of a pig-skin pocket book he called *dumburu*, the cleaned and unpolished side of the leather he compared to clay. He was then shown the bundle of coloured wools which he examined at will, comparing and naming those he chose, a grey approaching violet he called *dumburu*; dark greyish-brown he said was like a certain kind of leaf; golden yellow like monkey's fat; a light yellow-brown like a spider's web; greenish-blue like the leaves of a particular kind of yam; a deep claret almost brown he compared to the bark of a tree which is chewed with areca nut and dark greyish-violet to a village potato. It seems that this man whose keen intellect we have referred to in Chapter II had retained something of the Vedda mode of thought acquired during his contact with them in his youth.